CLAIMS

1. A system for personal identity verification comprising:

    a computer based enrollment system for training a neural net to obtain neural net weights for a biometric of a user;

    a carrier;

    a validation biometric sensor for capturing a biometric reading from said user, mounted on said carrier and connected to said neural net engine circuitry; and

    neural net engine circuitry mounted on said carrier and having memory for stored neural net weights obtained from said computer based enrollment system for said user.

2. The system for personal identity verification of claim 1 wherein said validation biometric sensor upon activation transmits data to said neural net engine circuitry and said neural net engine circuitry generates an acceptance signal when the value generated by an output node of said neural net engine circuitry is within a predetermined acceptance range.

3. The system for personal identity verification of claim 2 wherein said acceptance signal activates a visual display.

4. The system for personal identity verification of claim 2 wherein said acceptance signal activates an audio speaker.

5. The system for personal identity verification of claim 2 wherein said acceptance signal activates a magnetic stripe.

6. The system for personal identity verification of claim 5 further comprising deactivating said magnetic stripe after a pre-determined elapsed time.

7. The system for personal identity verification of claim 2 wherein said acceptance signal activates an electrical switch.

8. The system for personal identity verification of claim 2 wherein said acceptance signal activates a wireless transmitter.

9. The system for personal identity verification of claim 1 wherein said carrier is a financial transaction card.

10. The system for personal identity verification of claim 1 wherein said carrier is an identification card.

11. The system for personal identity verification of claim 1 wherein said carrier is attached to a motor vehicle.

12. The system for personal identity verification of claim 1 wherein said carrier is attached to a building entrance.

13. The system for personal identity verification of claim 1 wherein said carrier is a keyless wireless entry device.

14. The system for personal identity verification of claim 1 wherein said carrier is a cellular telephone.

15. The system for personal identity verification of claim 1 wherein said carrier is a computer.

16. The system for personal identity verification of claim 1 wherein said computer based enrollment system comprises:

an enrollment biometric sensor for capturing a biometric reading from said user;

a computer connected to said enrollment biometric sensor; and

neural net training software in said computer.

17. The system for personal identity verification of claim 16 wherein said validation biometric sensor and said enrollment biometric sensor are fingerprint sensors.

18. The system for personal identity verification of claim 16 wherein said validation biometric sensor and said enrollment biometric sensor are microphones.

19. The system for personal identity verification of claim 16 wherein said validation biometric sensor and said enrollment biometric sensor are cameras.

20. The system for personal identity verification of claim 16 wherein said validation biometric sensor and said enrollment biometric sensor are digital scanners.

21. The system for personal identity verification of claim 1 wherein said neural net engine neural net engine circuitry mounted on said carrier has both inter and intra layer connections of all nodes.

22. The system for personal identity verification of claim 1 wherein:

said carrier is a financial transaction card;

said validation biometric sensor for capturing a biometric reading from said user is a fingerprint sensor; and

said neural net engine circuitry mounted on said carrier has both inter and intra layer connections of all nodes.

23. The system for personal identity verification of claim 1 wherein:

said carrier is an identification card;

said validation biometric sensor for capturing a biometric reading from said user is a fingerprint sensor; and

said neural net engine circuitry mounted on said carrier has both inter and intra layer connections of all nodes.

24. A method for personal identity verification comprising the steps of:

sensing enrollment information related to a biometric of a user that is recorded by an enrollment sensor;

transferring said enrollment information to a computer;

combining said enrollment information with samples from a representative database of biometrics from other individuals to form a training set;

using said training set and a computer algorithm in said computer to train a pre-chosen neural net structure to preferentially select said biometric of a user and in so doing calculating a chosen set of neural net weights;

transferring said chosen set of neural net weights into neural net circuitry attached to a carrier;

sensing validation information relative to a biometric of a user that is recorded by a biometric validation sensor attached to said carrier;

transferring said validation information to said neural net circuitry to generate a verification value at the output node; and

producing an acceptance signal when the value generated by said output node is within a pre-determined acceptance range.

25. The method of personal identity verification of claim 24 wherein said produced acceptance signal activates a visual display.

26. The method of personal identity verification of claim 24 wherein said produced acceptance signal activates an audio speaker.

27. The method of personal identity verification of claim 24 wherein said produced acceptance signal activates a magnetic stripe.

28. The method of personal identity verification of claim 27 further comprising deactivating said magnetic stripe after a pre-determined elapsed time.

29. The method of personal identity verification of claim 24 wherein said acceptance signal activates an electrical switch.

30. The method of personal identity verification of claim 24 wherein said acceptance signal activates a wireless transmitter.

31. The method of personal identity verification of claim 24 wherein said carrier is a financial transaction card.

32. The method of personal identity verification of claim 24 wherein said carrier is an identification card.

33. The method of personal identity verification of claim 24 wherein said carrier is a keyless wireless entry device.

34. The method of personal identity verification of claim 24 wherein said carrier is attached to a motor vehicle.

35. The method of personal identity verification of claim 24 wherein said carrier is attached to a building entrance.

36. The method of personal identity verification of claim 24 wherein said carrier is a cellular phone.

37. The method of personal identity verification of claim 24 wherein said carrier is a computer.

38. The method of personal identity verification of claim 24 wherein said validation biometric sensor and said enrollment biometric sensor are fingerprint sensors.

39. The method of personal identity verification of claim 24 wherein said validation biometric sensor and said enrollment biometric sensor are microphones.

40. The method of personal identity verification of claim 24 wherein said validation biometric sensor and said enrollment biometric sensor are cameras.

41. The method of personal identity verification of claim 24 wherein said validation biometric sensor and said enrollment biometric sensor are digital scanners.

42. The method of personal identity verification of claim 24 wherein said neural net engine neural net engine circuitry mounted on said carrier has both inter and intra layer connections of all nodes.

43. The method of personal identity verification of claim 24 wherein:

said carrier is a financial transaction card;

said validation biometric sensor for capturing a biometric reading from said user is a fingerprint sensor; and

said neural net engine circuitry attached to said carrier has both inter and intra layer connections of all nodes.

44. The method of personal identity verification of claim 24 wherein:

said carrier is an identification card;

said validation biometric sensor for capturing a biometric reading from said user is a fingerprint sensor; and

said neural net engine circuitry attached to said carrier has both inter and intra layer connections of all nodes.